

REMARKS

This application has been reviewed in light of the Office Action mailed on May 7, 2004. Claims 1-21 are pending in the application with Claims 1, 8 and 15 being in independent form. By the present amendment, Claims 1, 8 and 15 have been amended and Claim 7 has been cancelled. Reconsideration of the above identified application in view of the following remarks is respectfully requested.

- Claims 1-6, 8-9, 11, 13, 16 and 18 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,982,420 issued to Ratz on November 9, 1999 ("Ratz").

- Claim 7 was rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,982,420 issued to Ratz on November 9, 1999 ("Ratz") in view of U.S. Patent No. 5,867,584 issued to Hu on February 2, 1999.

- Claim 15 was rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,982,420 issued to Ratz on November 9, 1999 ("Ratz") in view of U.S. Patent No. 5,111,288 issued to Blackshear on May 5, 1992.

Claim 1 has been amended herein to better define Applicant's invention over Ratz. Claim 1 recites new limitations and/or features which are not disclosed by Ratz. In addition, the existing limitations of Claim 7 have been incorporated into Claim 1, with minor modification.

Claim 1 as amended herein recites in part:

(c) during said automatic track mode, the automated video tracking system calculating a confidence value indicating a degree of correlation between the tracked target and a previously constructed computer model of said tracked target;

(d) during said automatic track mode, the automated video tracking system providing a warning to a user indicating that said automatic track mode is about to fail whenever said calculated confidence value falls below a pre-determined threshold confidence value; [Emphasis Added]

Claim 7 has been canceled without prejudice and incorporated into the base claim, Claim 1, from which it depends. In the Office Action (see item 3, page 4), the Examiner rejects Claim 7 as being unpatentable over Ratz in view of Hu et al. The Examiner states that Hu discloses an apparatus that automatically tracks objects until a quality or confidence value falls below a threshold in which the system then warns the user.

Hu discloses at Column 4, lines 14-16,

If the system fails to track the object in a frame the system will warn the user and wait for further instructions from the user

Hu teaches that the warning to an operator occurs as a consequence of the tracking system's failure to track the object. That is, a tracking failure has already occurred. In contrast to Hu, the invention is directed to forewarning a user of an imminent potential failure in the tracking of an object. In other words, failure has not yet occurred, but is about to occur. Claim 1 recites, *providing a warning to a user indicating that said automatic track mode is about to fail whenever said calculated confidence value falls below a pre-determined threshold confidence value*

Support can be found in the specification at pages 15-16 wherein it states that when a target is selected by the tracking system of the invention, a computer model is built to represent the appearance of that target. During tracking of the target, whenever the tracker finds a part of the image that matches to the target model, the tracker computes a number (called the confidence value) which quantifies how well the target matches the computer model. The specification goes on to state that a control can also be provided to indicate a threshold value for the confidence. Thus, should the model match the target with less than this threshold value, the operator is preferably notified by a signal of some form that the confidence is lower than the threshold and the tracking is about to fail.

It is respectfully submitted that neither Ratz nor Hu teach or disclose the creation of a computer model of an intended target, using the computer model to compare with an actual tracked target to establish a measure of correlation therewith, whereby the correlation measure (i.e., confidence value) is used to determine when a tracking failure is about to occur.

Accordingly, for at least the reasons given above, it therefore follows that Ratz does not anticipate the subject matter of Claim 1.

Accordingly, applicants respectfully request withdrawal of the rejection under 35 U.S.C. §103(a) with respect to Claim 1 and allowance thereof is respectfully requested.

Claims 2-6 depend from independent Claim 1 and therefore contain the limitations of Claim 1. Hence, for at least the same reasons given for Claim 1, Claims 2-6 are believed to be allowable over Ratz. Accordingly, withdrawal of the rejection under 35 U.S.C. §103(a) with respect to Claims 2-6 is respectfully requested.

Independent Claims 8 and 15 recite similar limitations as the limitations recited by independent Claim 1 and are believed to be in condition for allowance for at least the same reasons given for Claim 1.

Further, with respect to the rejection of Claim 15, it is respectfully submitted that U.S. Patent No. 5,111,288 to Blackshear does not cure the deficiencies of Ratz. Blackshear is cited to provide a tracking system that controls the pan and tilt movements through the motion of a joystick.

Accordingly, it therefore follows that Ratz in view of Blackshear, alone or in combination, do not anticipate the subject matter of Claim 15.

Additionally, Claims {9, 11, 13} and {16, 18, 20} depend respectively from Independent Claims 8 and 15 and therefore contain the limitations of Claims 8 and 15. Hence for at least the same reasons given for Claims 8 and 15, Claims {9, 11, 13} and {16, 18, 20} are believed to be allowable over Ratz and Hu, alone or in combination. Accordingly, withdrawal of the rejection under 35 U.S.C. §103(a) with respect to Claims 1-6, 8-9, 11, 13, 16 18 and 20 is respectfully requested.

- Claims 10 and 12 were rejected under 35 U.S.C. §103(a) over Ratz in view of Blackshear.

Claims 10 and 12 depend from independent Claim 8 and therefore contain the limitations of Claim 8. Hence, for at least the same reasons given for Claim 8, Claims 10 and 12 are believed to be allowable over the cited reference. Accordingly, withdrawal of the rejection under 35 U.S.C. §103(a) with respect to Claims 10 and 12 and allowance thereof are respectfully requested.

◦ Claims 14, 17, 19 and 21 were rejected under 35 U.S.C. §103(a) over Ratz in view of Blackshear.

Claims 14, 17, 19 and 21 depend from independent Claims 8 and 15, respectively, and therefore contain the limitations of Claims 8 and 15. Hence, for at least the same reasons given for Claims 8 and 15, Claims 14, 17, 19 and 21 are believed to be allowable over the cited reference. Accordingly, withdrawal of the rejection under 35 U.S.C. §103(a) with respect to Claims 14, 17, 19 and 21 and allowance thereof are respectfully requested.

In view of the foregoing amendments and remarks, it is respectfully submitted that this application is in condition for allowance. Accordingly, it is respectfully requested that this application be allowed and notice of allowance be issued.

If the Examiner should have any questions concerning this communication or feels that an interview would be helpful, the Examiner is requested to call Dicron Halajian, Esq., Intellectual Property Counsel, Philips Electronics North America Corp., at 914-333-9607.

Respectfully submitted,



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